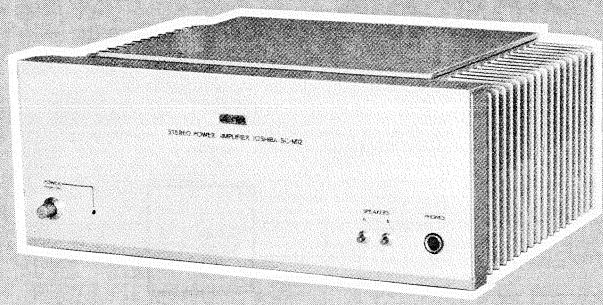
SERVICE DATA
FILE NO. 170-094

TOSHIBA

STEREO POWER AMPLIFIER

SC-M12, SC-M12B

For TE, TU, AY



SC-M12

For TA,TC

SC-M12

SC-M12B

SPECIFICATIONS

Power Output:
Continuous Power Output is 30 watts per channel, min. RMS at 8 ohms from 20 to 20,000 Hertz with no more than 0.04% total harmonic distortion (TA, TC)

Continuous Power Output

20 Hz to 20 kHz both channel driven:	35W x 2 (4 ohm) 30W x 2 (8 ohm)
1 kHz both channel driven:	40W x 2 (4 ohm) 35W x 2 (8 ohm)
Total Harmonic Distortion:	0.05% (TE, TU, AY) 0.04% (TA, TC) (at rated power, 8 ohm)

Frequency Response:	10 to 45 kHz +0.5, –1 dB
Power Bandwidth (IHF):	10 Hz to 30 kHz (0.1%)
Damping Factor:	30
S/N (IHF) A Network:	110 dB

General

Power Supply:	220V ∿ 50 Hz or 240V ∿ 50 Hz (TE, TU, AY) 120V ∿ 60 Hz (TA, TC)
Power Consumption:	260W (TE, TU, AY) 190W, (TA, TC)
Weight:	5.1 kg
Dimensions (W x H x D):	257 x 106 x 208 mm

Specifications are subject to change without notice.

TA, TC, TE, TU, AY

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1. BLOCK DIAGRAM

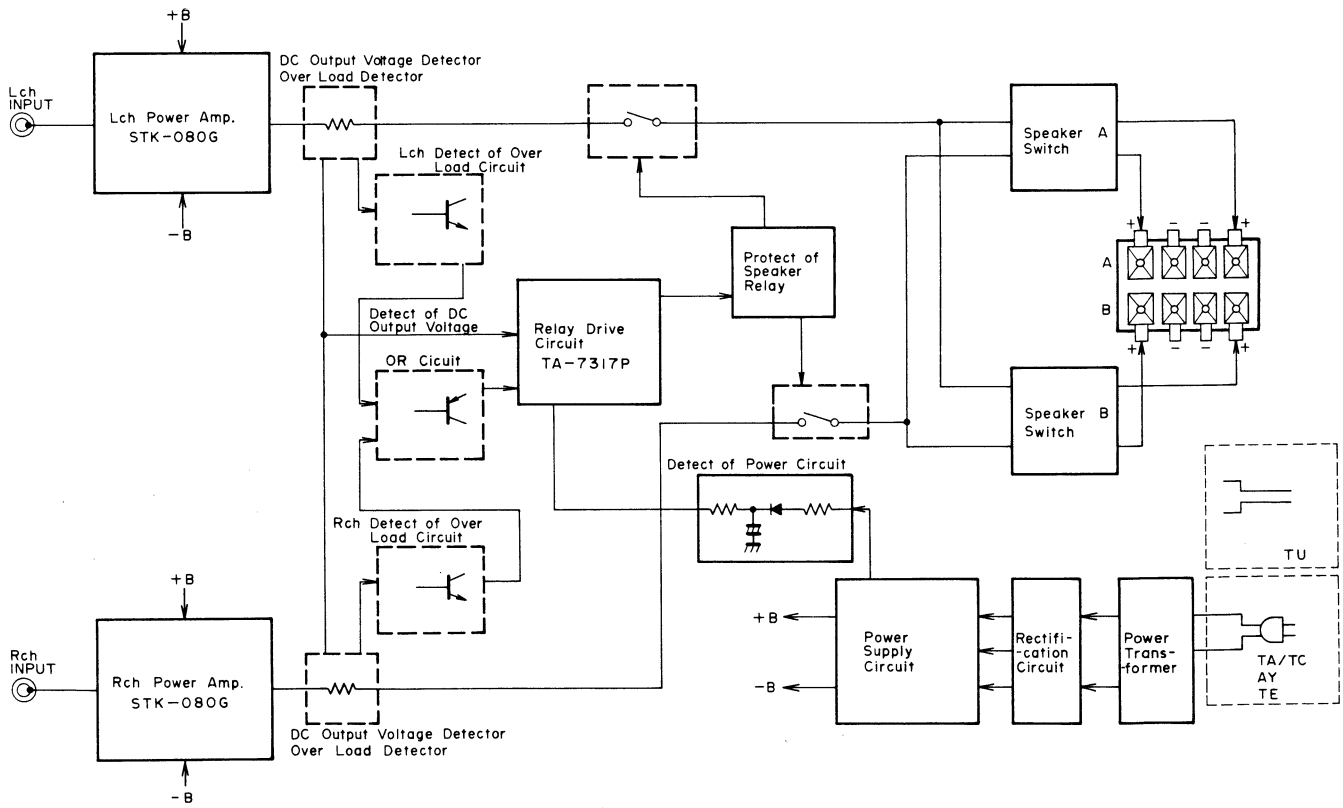


Figure 1.

SC-M12
SC-M12B

2. OPERATING CONTROLS

(The photographs are ones of SC-M12, European Model)

FRONT VIEW

POWER SWITCH

When this switch is pushed, power is supplied to the set and the power indicator lights up. Push again to turn off power.

COOLING FINS

These fins effectively dissipate the heat generated by the output power I.C.

* These fins become fairly hot after the set has been operated continuously for an extended period of time. Therefore, ample caution must be exercised when carrying or otherwise handling the set.

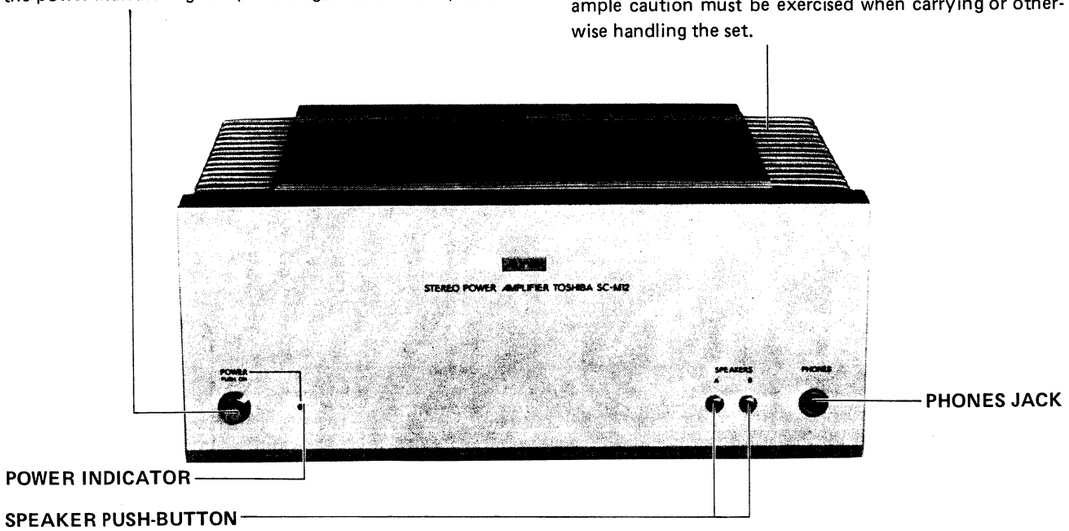


Figure 2.

Two push-buttons correspond to the speaker terminals on the rear panel. Select according to the speaker system arrangement being used.

REAR VIEW

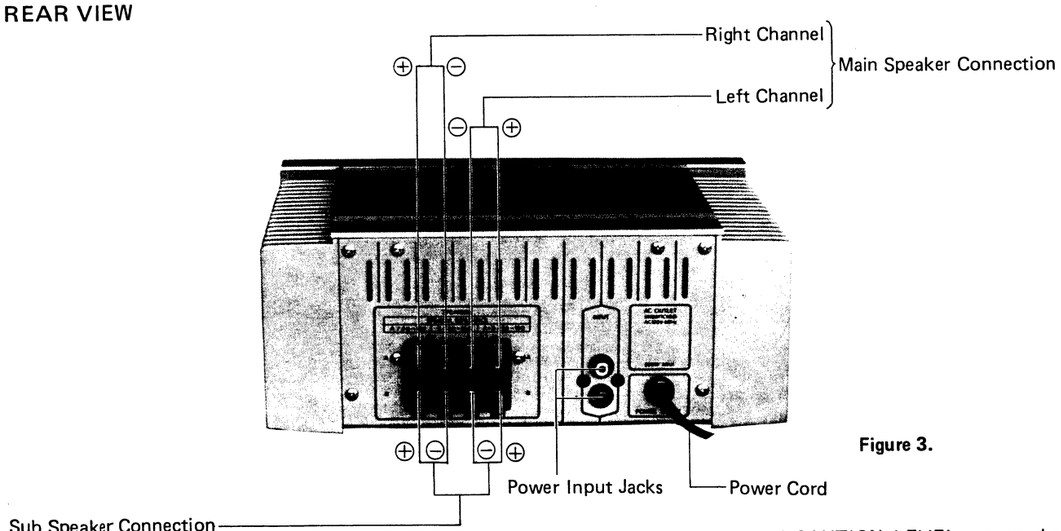


Figure 3.

Note: The Rating and CAUTION LEVEL are on the bottom of the set.

3. DISASSEMBLY INSTRUTIONS

(The photographs are ones of SC-M12, European Model)

REMOVAL OF FRONT PANEL

1. Remove the two BID tapping screws ① (3ϕ x 8 mm) on the jack plate side as shown in Figure 4.
2. Remove the four screws ② (3ϕ x 8 mm) on the bottom plate side as shown in Figure 5.
3. Remove the front panel, lifting the rear portion of the panel upright.

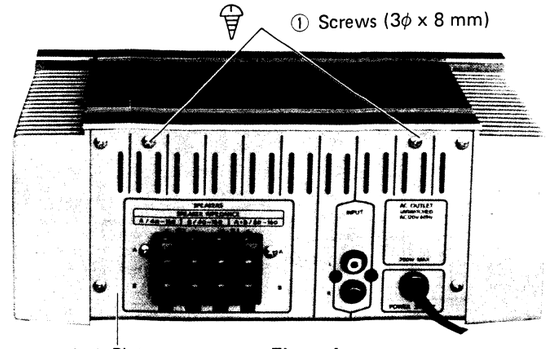


Figure 4.

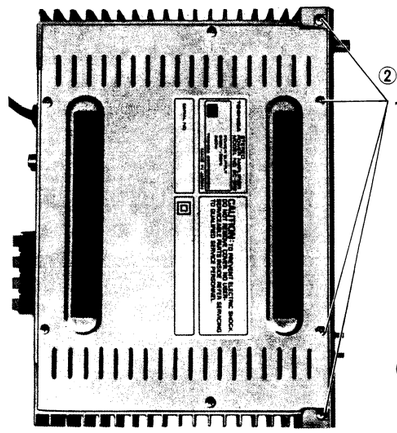


Figure 5.

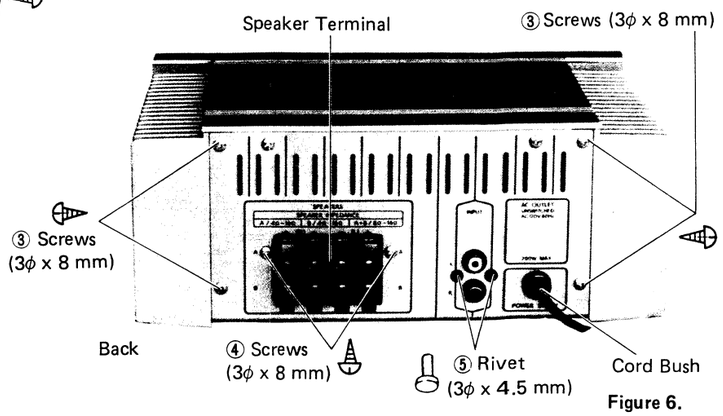


Figure 6.

REMOVAL OF JACK PLATE

1. Remove the four BID tapping screws ③ (3ϕ x 8 mm) on the jack plate as shown in Figure 5.
2. Remove the two BID tapping screws ④ (3ϕ x 8 mm) holding the speaker terminals as shown in Figure 5.
3. Remove the two plastic rivets ⑤ (3ϕ x 4.5 mm) holding the 2 pin jack as shown in Figure 6.
4. It is capable of replacing the jack plate to remove the cord bush as shown in Figure 6.

REMOVAL OF BOTTOM PLATE

1. Remove the six BID tapping screws ⑥ (3ϕ x 8 mm) on the bottom plate and the bottom plate can be removed from the main chassis as shown in Figure 7.

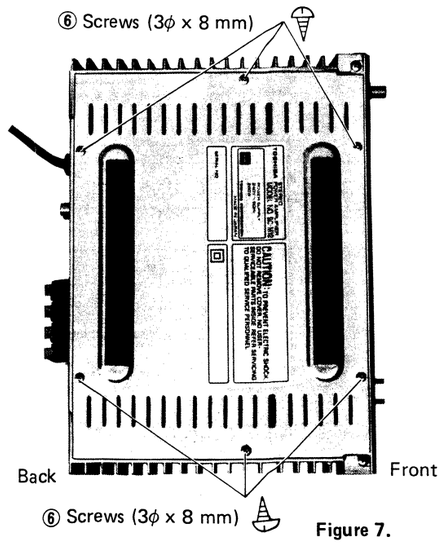
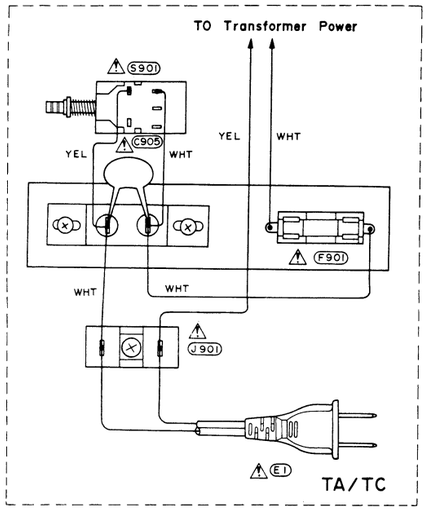
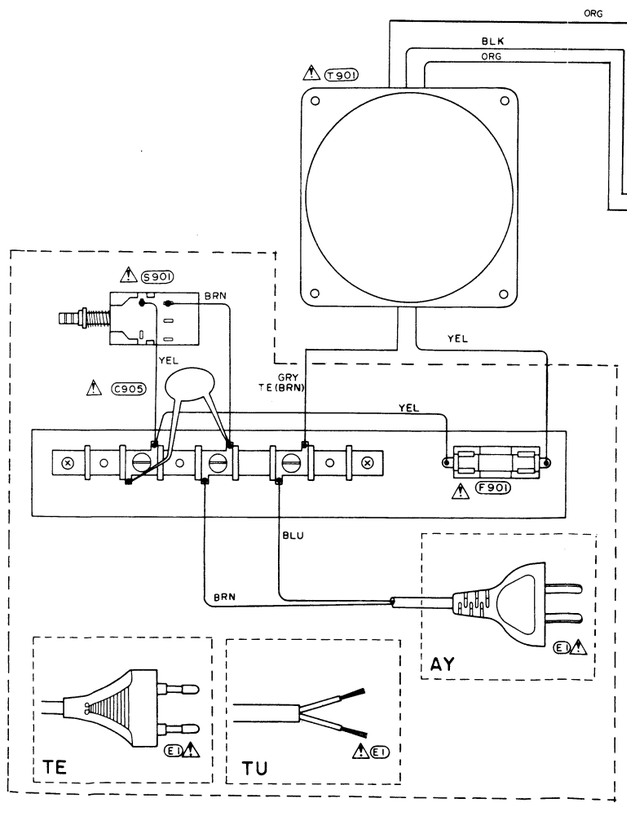


Figure 7.

4. ELECTRICAL PARTS LOCATIONS

CAUTION:
The ⚠ mark, the symbol No. circled with rectangule in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.





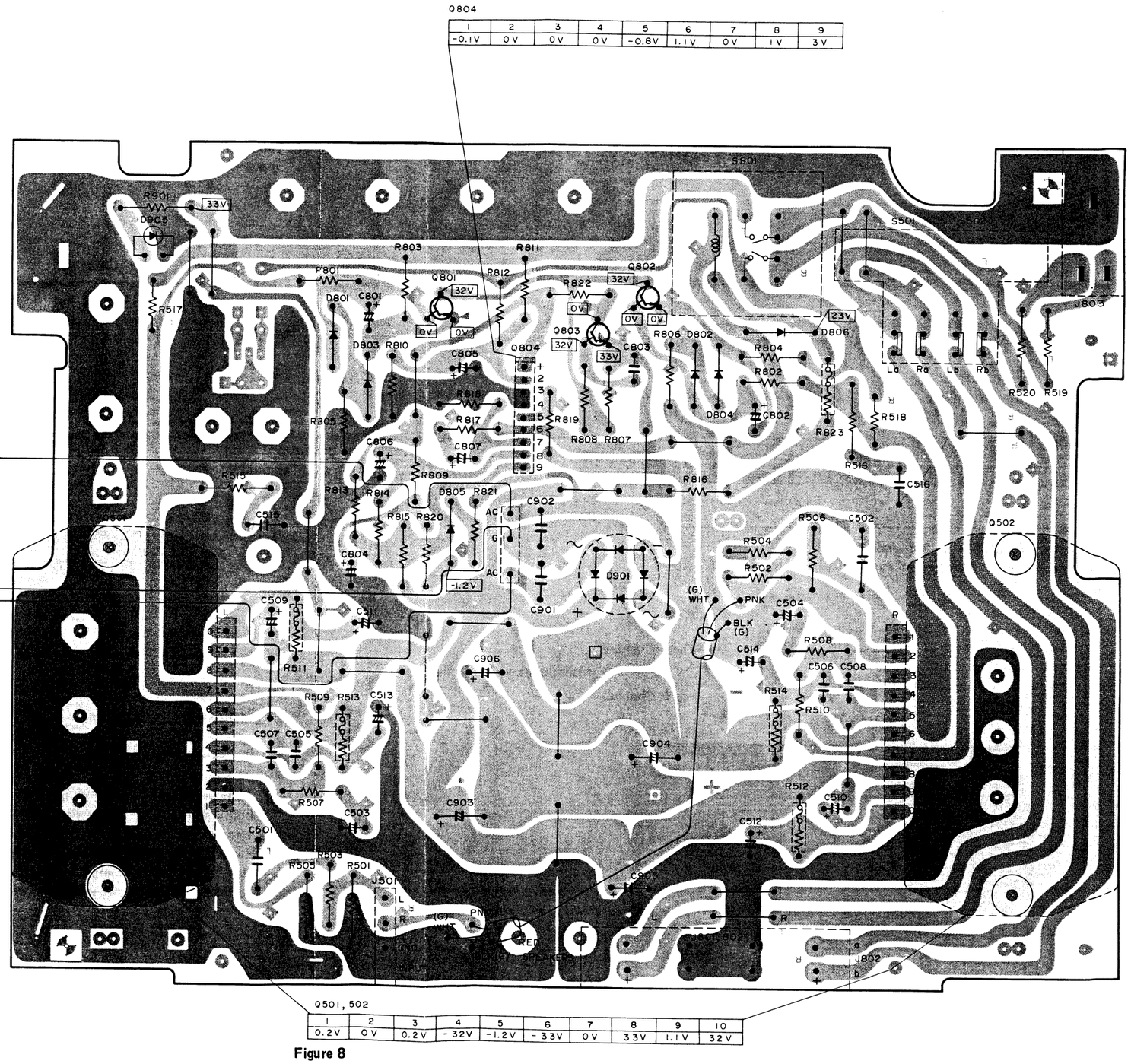


Figure 8

4. ELECTRICAL PARTS LOCATIONS

CAUTION:
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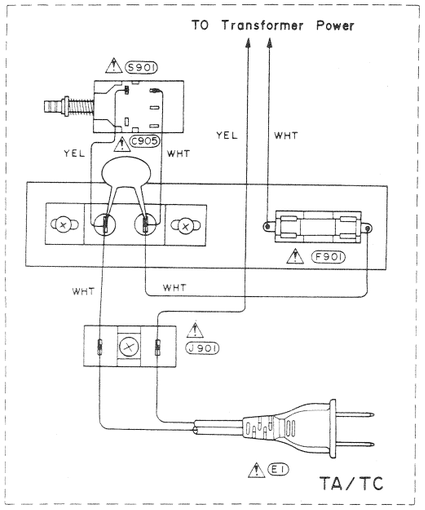
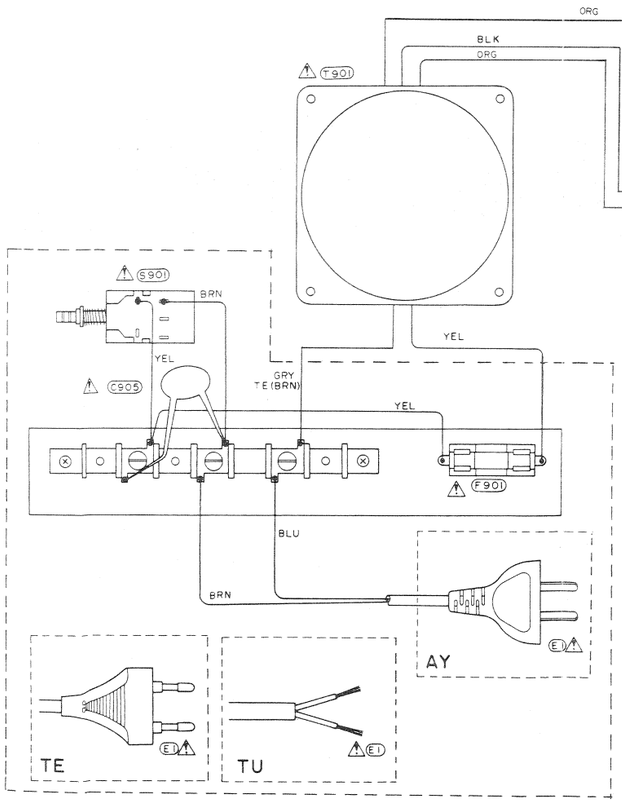




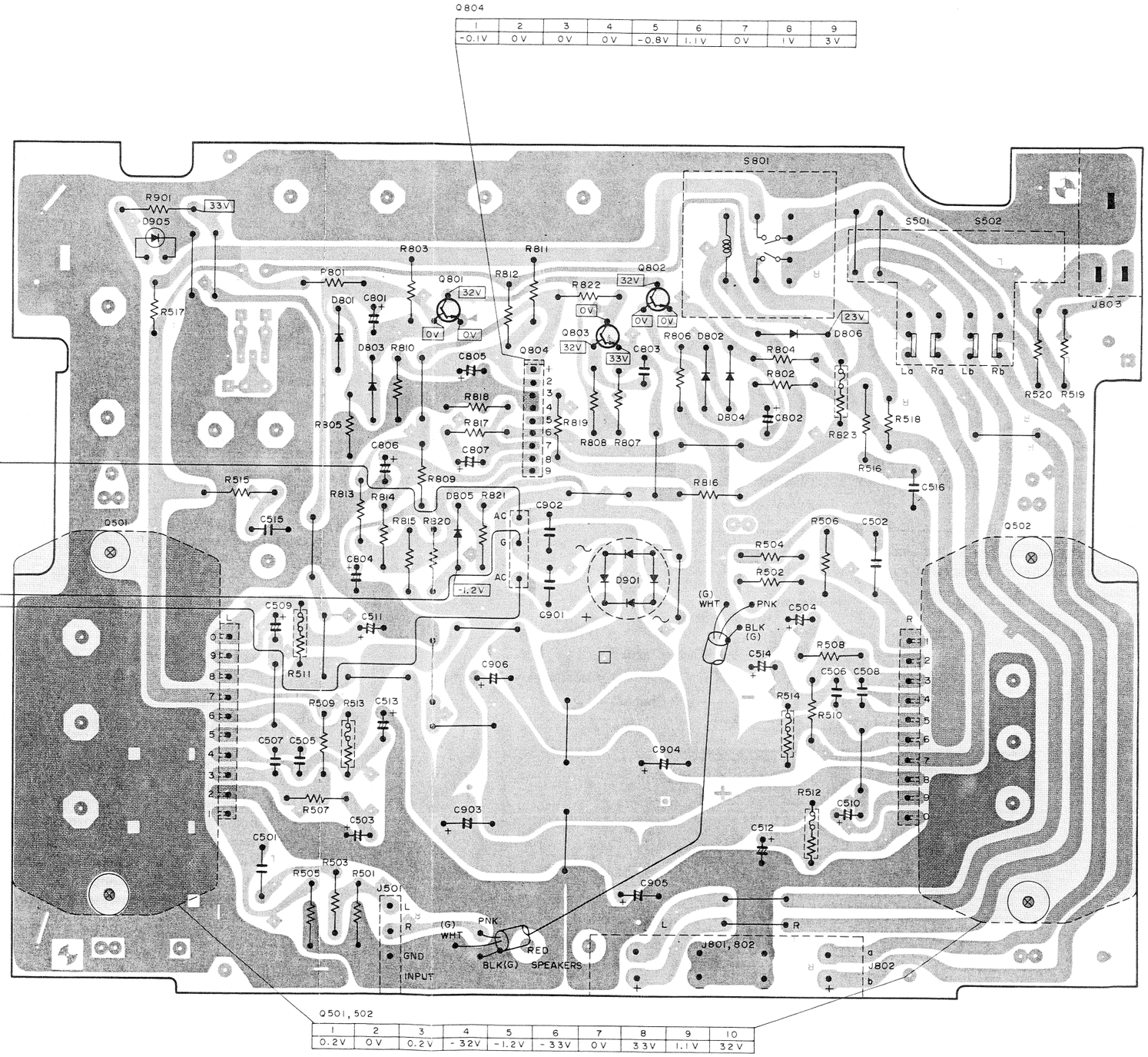
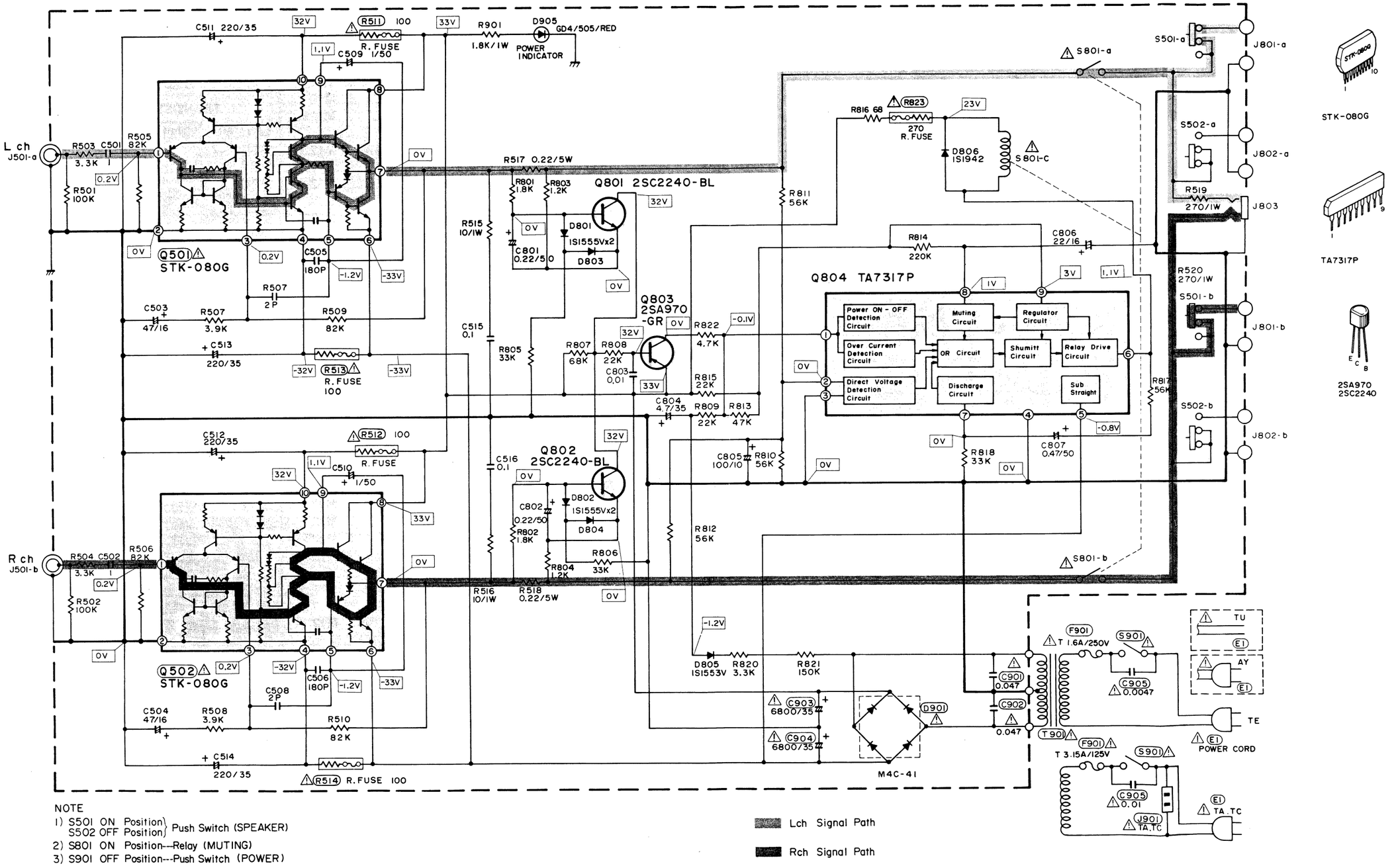


Figure 8

5. SCHEMATIC DIAGRAM

CAUTION:
The ⚠ mark, the symbol No. circled with rectangle in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.



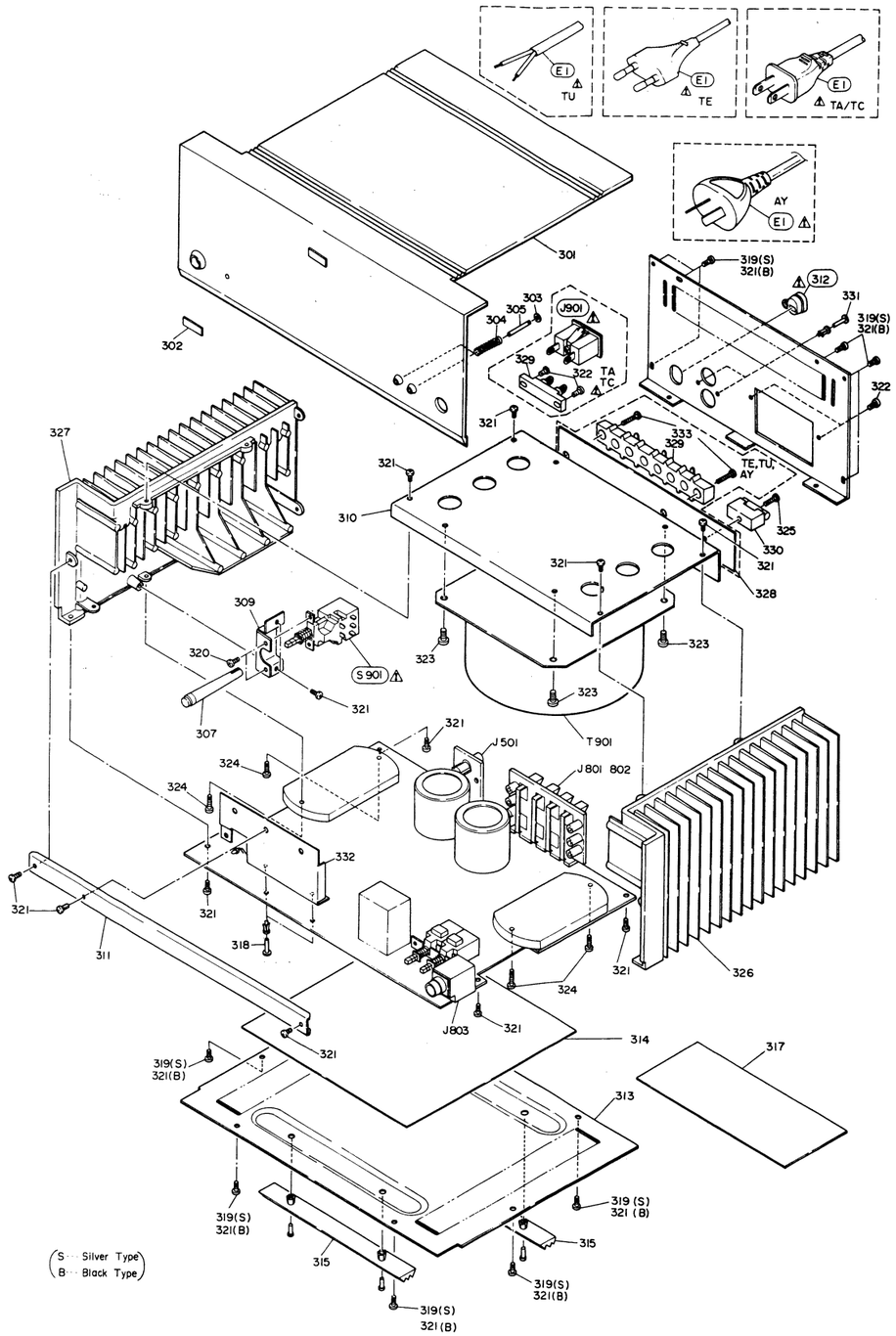
STK-080G

TA7317P

2SA970
2SC2240

Figure 9.

7. EXPLODED VIEW (CABINET)



NOTE: Parts excluded in the Parts List are not available as replacement parts.

Figure 10.

8. PARTS LIST

CAUTION:
The ⚠ mark, the symbol No. circled with rectangle in the schematic diagram and the shaded area in the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

	Symbol No.	Part No.	Description
	CABINET PARTS		
	301	20017136	Panel Ass'y (TE, TU, AY) M12
	301	20017139	Panel Ass'y (TA, TC) M12
	301	20017141	Panel Ass'y (TA, TC) M12B
	302	22864193	Badge, Aurex (TE, TU, AY) (Silver) M12
	302	22864257	Badge, TOSHIBA (TA, TC) (Silver) M12
	302	22864275	Badge, TOSHIBA (TA, TC) (Black) M12B
	303	25764536	Washer
	304	25772471	Spring, Knob
	305	25837237	Knob, Push
	307	22824266	Knob, Ass'y, Power
	308	20015176	Jack Plate (TE, TU, AY) (Silver) M12
	308	20015185	Jack Plate (TA, TC) (Silver) M12
	308	20015186	Jack Plate (TA, TC) (Black) M12B
⚠	312	25845528	Bush, Nylon (TE, TU, AY)
⚠	312	25845120	Bush, Nylon (TA, TC)
	315	22874046	Leg (TE, TU, AY)
	315	22874057	Leg (TA, TC)
	317	22950956	Plate Name (TE) M12
	317	22950971	Plate Name (TU, AY) M12
	317	22950986	Plate Name (TA) M12
	317	22950987	Plate Name (TC) M12
	317	22950994	Plate Name (TA) M12B
	317	22950995	Plate Name (TC) M12B
	318	22705020	Rivet, Plastic 3ϕ x 4.5 mm
	319	22707327	Screw, BID, 3ϕ x 8 mm Tapping (Chrome) M12
	320	22707066	Screw, BID, 3ϕ x 6 mm M12
	321	22701326	Screw, BID, 3ϕ x 8 mm Tapping (Black)
	322	22707382	Screw, BID, 3ϕ x 10 mm Tapping (Chrome) M12
	322	22707165	Screw, BID, 3ϕ x 10 mm Tapping (Black) M12B
	323	22707040	Screw, FT BID, 4ϕ x 6 mm (Black)
	324	22707320	Screw, BID, 2.6ϕ x 14 mm Tapping
	325	22707413	Screw, PAN, 3ϕ x 10 mm Tapping (TE, TU, AY)
	326	20036065	Radiator, Right (Silver) M12
	326	20036068	Radiator, Right (Black) M12B
	327	20036066	Radiator, Left (Silver) M12
	327	20036069	Radiator, Left (Black) M12B
	333	22707276	Screw, BID, 3ϕx12mm (TE,TU,AY)
	TRANSISTORS DIODES AND IC'S		
	Q501, 502	22114798	IC, STK-080G
	Q801, 802		Transistor, 2SC2240-BL
	Q803		Transistor, 2SA970-GR
	Q804		IC, TA7317P
⚠	D801, 802		Diode, 1S1555V
⚠	D803, 804		
	D805		Diode, 1S1553V
	D806		Diode, 1S1942
⚠	D901	22115460	Diode, M4C-41
	D905	22115436	Diode, GD4/505/–RED
	ELECTRICAL PARTS		
⚠	T901	22223712	Transformer, Power (TE)
⚠	T901	22223722	Transformer, Power (TU)
⚠	T901	22223723	Transformer, Power (AY)
⚠	T901	22223746	Transformer, Power (TA, TC)
	S501, 502	22195453	Push Switch, Speaker
⚠	S801	22148657	Relay
⚠	S901	22146204	Push Switch, Power (TE, TU, AY)
⚠	S901	22195226	Push Switch, Power (TA, TC)
	J501	22163774	Jack, US 2P
	J801, 802	22162457	Jack, Speaker
	J803	22163676	Jack, Headphone
⚠	J901	22167874	AC Socket (TA, TC)
⚠	F901	22144293	Fuse, T 1.6A/250V (TE, TU, AY)
⚠	F901	22144332	Fuse, T 3.12A/125V (TA, TC)
⚠	E1	22176286	Cord, Power (TE)
⚠	E1	22176536	Cord, Power (TU)
⚠	E1	22176588	Cord, Power (AY)
⚠	E1	22176573	Cord, Power (TA, TC)

CAPACITORS
C=±0.25pF, J=±5%, K=±10%, M=±20%, P=–0 to +100%, Z=–20 to +80%
ABBREVIATIONS; CD=Ceramic disk, EL=Electrolytic MY=Mylar

C501, 502	22370208	MY, 1 mfd, 250V, K
C503, 504	22485470	EL, 47 mfd, 16V
C505, 506	22362181	CD, 180 pF, 50V, K
C507, 508	22360077	CD, 2 pF, 50V, C
C509, 510	22488109	EL, 1 mfd, 50V
C511, 512	22487221	EL, 220 mfd, 35V

Symbol No.	Part No.	Description
C513, 514	22487221	EL, 220 mfd, 35V
C515, 516	22373104	MY, 0.1 mfd, 50V, M
C801, 802	22488228	EL, 0.22 mfd, 50V
C803	22371103	MY, 0.01 mfd, 50V, J
C804	22488479	EL, 4.7 mfd, 35V
C805	22483101	EL, 100 mfd, 10V
C806	22485220	EL, 22 mfd, 16V
C807	22488478	EL, 0.47mfd, 50V
⚠ C901, 902	22342473	CD, 0.047 mfd, 50V, Z
⚠ C903, 904	22440335	EL, 6800 mfd, 35V
⚠ C905	22340147	CD, 0.0047 mfd, AC 400V, M (TE, TU, AY)
⚠ C905	22340140	CD, 0.01 mfd, AC 125V, P (TA, TC)
		RESISTORS
		All resistors are ¼W, ±5%, carbon film unless otherwise noted. K=±10%
R501, 502	22545104	100k ohm
R503, 504	22545332	3.3k ohm
R505, 506	22545823	82k ohm
R507, 508	22545392	3.9k ohm
R509, 510	22545823	82k ohm
⚠ R511, 512	22500122	100 ohm, Fusible
⚠ R513, 514	22500122	100 ohm, Fusible
R515, 516	22570250	10 ohm, 1W
R517, 518	22500186	0.22 ohm, 5W, K
R519, 520	22570267	270 ohm, 1W
R801, 802	22545182	1.8k ohm
R803, 804	22545122	1.2k ohm
R805, 806	22545333	33k ohm
R807	22545683	68k ohm
R808	22545223	22k ohm
R809	22545223	22k ohm
R810	22545563	56k ohm
R811	22545563	56k ohm
R812	22545563	56k ohm
R813	22545473	47k ohm
R814	22545224	220k ohm
R815	22545223	22k ohm
R816	22545680	68 ohm
R817	22545563	56k ohm
R818	22545333	33k ohm
R819	22545223	22k ohm
R820	22545332	3.3k ohm
R821	22545154	150k ohm
R822	22545472	4.7k ohm
⚠ R823	22500135	270 ohm, Fusible
R901	22570277	1.8k ohm, 1W

Symbol No.	Part No.	Description
		ACCESSORIES
	22902460	Owner's Manual (TE, TU, AY)
	22902509	Owner's Manual (TA, TC)